

## **REMARKS**

Claims 1-25 are pending in this application, all of which stand rejected. In particular, claims 1-25 have been rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter, and have also been rejected under 35 U.S.C. § 102 as being anticipated by the Tittel reference. Additionally, the drawings and specification have been objected to. Following entry of the amendment, claims 1, 7, 10, 13, 18, 21, and 24, and paragraphs 0025, 0026, and 0053 will have been amended.

Applicants respectfully submit, for the reasons set forth below, that this application is in condition for allowance.

### The Section 102 Rejection

The amendment to the independent claims has rendered the section 102 rejections moot. However, applicants wish to focus the Examiner's attention on certain features, which clearly define over the art that has been applied.

The art applied by the Examiner (Tittel) generally discusses Data Type Definitions (DTDs) for XML documents. The fact that DTDs have been cited as the most relevant art indicates that the Examiner has overlooked the difference between syntax and substance. A DTD is used to define the correct syntax for a particular type of XML document. Thus, any document that conforms to the syntax specified in the DTD would be determined to be a document that meets the definition set forth in that DTD.

However, as explained in the application, it is possible to write a document that is syntactically valid, but substantively invalid. The running example in the application is that of a U.S. postal address. (See paragraphs 0007, 0029-0034, and 0040.) In particular, if the schema for a particular document calls for a city, a state, and a zip code, then "Redmond, Washington 19103" is a *syntactically* valid address, but not a *substantively* valid address. The address is syntactically valid because it includes all of the required elements of city, state, and zip code. However, the address is substantively invalid (under a particular set of validity rules), because 19103 is not the zip code for Redmond, Washington. Since "Redmond, Washington 19103" is syntactically-well-formed, it is not possible to determine based purely

on syntactic definitions (such as those in a DTD) whether “Redmond, Washington 19103” is a valid address.

The distinction between messages that are syntactically valid and those that are substantively valid is explained in paragraphs 0034 and 0040 of the application. The independent claims have been amended to make clear that at least one delegate validates an element of the message based on criteria that cannot be entirely evaluated from the mere syntax of the message. It should thus be clear that the independent claims, as amended, define over the applied art that relates to DTDs.

Additionally, claims 7, 13, and 24 have been amended to clarify that a particular delegate may evaluate an entire subtree of an element, and in claims 13 and 24 it is specifically stated that the validation engine does not traverse the subtree. This feature is not found in the Tittel reference. Applicants note that claims 4 and 15 recite features relating to the idea that a flag indicates whether a subtree of an element is to be traversed or not, and, as to this feature, the Examiner has cited only the portion of Tittel indicating that an element in XML may be specified as “Book (Subject, Title, Author)”, as to which the Examiner reasons as follows: “The ‘Subject’, ‘Title’ and ‘Author’ elements are flags that indicate that the element ‘Book’ has a subtree that is to be traversed.” In this example, “Subject”, “Title”, and “Author” can each be viewed as being a subtree of “Book”; however, the Examiner simply presumes that because these subtrees exist, they must be traversed, and that is precisely what Tittel does not discuss. However, the way in which subtrees are to be handled is something that may need to be specified, and cannot merely be presumed from the existence of the subtree. In particular, paragraph 0045 of the application states that the validation table can specify whether a subtree of a particular element is to be traversed or not. The notion of specifying whether a subtree is to be traversed cannot be inferred from Tittel’s silence on this issue, and thus Tittel does not anticipate the features of claims 4, 7, 13, 15, and 24.

Accordingly, applicants submit that all of the pending claims are patentable over the applied art, and request that the Examiner reconsider and withdraw the section 102 rejection.

#### The Section 101 Rejection

The Examiner finds that the claims constitute non-statutory subject matter, although it is unclear what the Examiner believes is the basis for this finding. The Examiner has

variously stated that the application “fail[s] to describe a significant functionality of a validated message,” that the application “is silent as to the benefits of a valid XML message,” and that “validating an XML document is useful, but not essential.”

The last quote appears to answer the rejection: The Examiner states that validating an XML document is useful. Section 101 does not state that a patentable invention is to be “essential”; rather, it requires that an invention be “useful.” As to the fact that the subject matter of the present application is “useful,” applicants and the Examiner appear to be in agreement.

Additionally, it is unclear on what basis the utility of validating a message is being questioned. The Examiner appears to suggest that the application does not set forth any utility for the act of validating a message, but this is simply not the case. At a minimum, the application shows the example in which the message is a postal address, and in which it is desirable to validate the message. In paragraph 0003:

For example, a type of message may be an “address,” and the schema for an address may require that an address include a street name, a city, a state, and a zip code. However, even a message that obeys the schema may be invalid for some substantive reason. For example, any combination of data that purports to be a street name, city, state, and zip code would satisfy the schema, but the address may still be invalid if, say, the state element is not the name of one of the United States, or if the zip code specified does not match the city/state combination.

It should be apparent that an address in which city and state do not match the zip code is confusing, potentially ambiguous, and, therefore, a bad thing. Surely there can be no dispute that checking out the address before it is used (i.e., “validating” the address, if you will) is a useful act.

Third, the Examiner appears to rely partially on the argument that an invalid document is not XML, and therefore there is no need to validate an XML document. This tautology appears to be based on the statement in the Tittel reference that “all XML documents are well formed – or else they aren’t XML,” and it is beside the point. First, the statement that a non-well-formed XML document is not an XML document at all is a matter of nomenclature and not of substance; if an invalid XML document is not an XML document at all, then “validating” an XML document would simply mean that one is “validating” the

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document in order to determine if it is an XML document. Second, the claims (at least the independent claims) are not limited to the case where the document is an XML document. Thus, even if it were not useful to validate an XML document (which applicants do not agree is the case), there are certainly other kinds of messages that can be valid or not under some set of criteria, and the invention is useful for validating such documents.

Accordingly, applicants request that the Examiner reconsider and withdraw the section 101 rejection.

**No New Matter**

The amendments to the claims and specification do not introduce new matter.

The amendments to the specification are merely formal in nature in order to conform the specification to the drawings, and thus do not introduce new matter.

The amendments to the claims are supported by the originally-filed specification, at least at paragraphs 0034, 0040, and 0045. Thus, the claim amendments do not introduce new matter.

**Objections to the Specification and Drawings**

Since the objections to the drawings and specification are both based on asserted inconsistencies between the drawings and the specification, the amendment to the specification addresses all of the objections.

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